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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,916

03/07/2005

Yasuhiro Omori

JFE-05-1032

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EXAMINER

YANG, JIE

ART UNIT

PAPER NUMBER

1793

MAIL DATE

DELIVERY MODE

04/08/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<p align="center">Advisory Action Before the Filing of an Appeal Brief</p>	<p>Application No. 10/526,916</p>	<p>Applicant(s) OMORI ET AL.</p>	
	<p>Examiner JIE YANG</p>	<p>Art Unit 1793</p>	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 19 March 2008 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☐ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because
(a) ☒ They raise new issues that would require further consideration and/or search (see NOTE below);
(b) ☐ They raise the issue of new matter (see NOTE below);
(c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: See Continuation Sheet. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).
5. ☒ Applicant's reply has overcome the following rejection(s): claim 1 under U.S.C.35 112 first paragraph.
6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☒ will not be entered, or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.
The status of the claim(s) is (or will be) as follows:
Claim(s) allowed: _____.
Claim(s) objected to: _____.
Claim(s) rejected: 1-20.
Claim(s) withdrawn from consideration: _____.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing a good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:
See Continuation Sheet.
12. ☐ Note the attached Information *Disclosure Statement*(s). (PTO/SB/08) Paper No(s). _____
13. ☐ Other: _____.

/Roy King/
Supervisory Patent Examiner, Art Unit 1793

JY

Continuation of 3. Note: The new added claim 21 includes the similar limitations of previously presented claims 1 and 5, and new added claim 22, which depends on claim 21, includes the similar limitation of previously presented claim 6. Therefore, they are NOT deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal. New added independent claim 21 changes the limitation scope of finally rejected claims, therefore the proposed amendments will NOT be entered because it would require further consideration/search.

Continuation of 11. Note: The requirement for reconsideration has been considered and the rejection of claim 1 under U.S.C. 35 112 first paragraph is withdrawn according applicant's argument/Remark filed on 3/13/2008. However the reconsideration does NOT place the application for allowance because:

the applicant argues US'358 does not disclose the claimed amount of Si present in an amount of more than 0.4 to 1.1wt%, while such Si composition will lead to surprisingly increase the fatigue strength (as shown in the enclosed Fig.1). In response, as pointed out in the previous office actions of 7/25/2007 and 12/26/2007, US'358 teaches induction hardened steel with a major composition range overlapping with the composition range as claimed. US'358 teaches adding 0.4wt% Si, which is close to the claimed 0.401wt% Si as recited in the instant claim, which held that US'358 has created a prima facie case of obviousness of the presently claimed invention. See 2144.05 I. From the relationship between torsional fatigue strength and Si concentration (Refer to the enclosed Fig.1 supplied by the applicant), the 0.4wt% Si would be enough to result in the increasing of the fatigue strength. In the other hand, the Si concentration is not the only factor of the increasing of the fatigue strength because there are different factors to affect the grain size of the steel. US'358 in view of US'105 teaches controlling the grain size less than 12 μ m (Col.1, lines 10-13 and tables 2-5 of US'105), which will result in high fatigue strength as claimed in the instant invention (Refer to the Fig.1-2 of the instant application);

the applicant argues the technical field and the task are different between US'105 and the applicants' steel, therefore US'105 is inapplicable. In response, as pointed out in the previous office action of 7/25/2007, US'105 teaches the similar induction hardening on the similar composition alloy and for the same application as recited in the instant invention. Therefore, it would have been obvious to one ordinary skilled in the art to choose US'105's process in order to obtain desired microstructure as recited in the instant invention in the process of US'358. (Detail motivation for combining these references can refer to the office action marked 7/25/2007).

The applicant argues the B and Cr contents play an important role in the improvement of torsional fatigue strength. In response, US'358 teaches alloy with the B and Cr composition ranges overlapping the composition as claimed in the instant claims. which held that US'358 has created a prima facie case of obviousness of the presently claimed invention. See 2144.05 I.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jie Yang whose telephone number is 571-2701884. The examiner can normally be reached on IFP.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King can be reached on 571-2721244.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300

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